*"System and Method for Generating
Programmable Traps for a
Communications Network"*
Inventors: Buehler et al.
Atty Docket: 021556.0139
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10

24
22
20A
20B
12A
12B

Subnet　　　　　　　　　　**Subnet**

14A — Endpoint　　　　　　Endpoint — 14C

16A — MCU　　Gateway　　MCU — 16B　　Endpoint

14B — Endpoint　　18　　Endpoint — 14E　　14D

FIG. 1

10

14A — Endpoint　　Endpoint — 14B　　MCU — 16A　　Gateway — 18

RS-232

36 — Translator

SNMP　　IP　　24　　HTTP　　Telnet

VNM

Subagent

MBean　　MBean　　34　　MBean (46)　　MBean (48)

40A　　40B　　42　　44

Master Agent

(56)　　32

52 — CTL　　54 — MIB　　50 — DDL

TDM — 60

NTLT

62

SNMP　　SNMP

20A — NMS　　NMS — 20B

FIG. 2

*"System and Method for Generating
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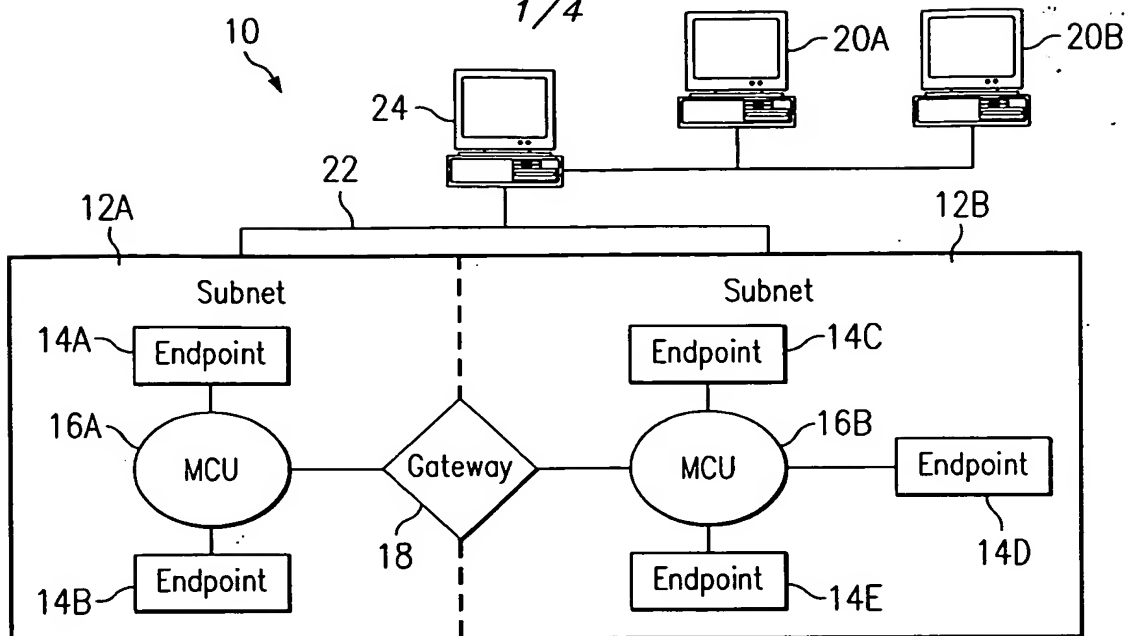Inventors: Buehler et al.
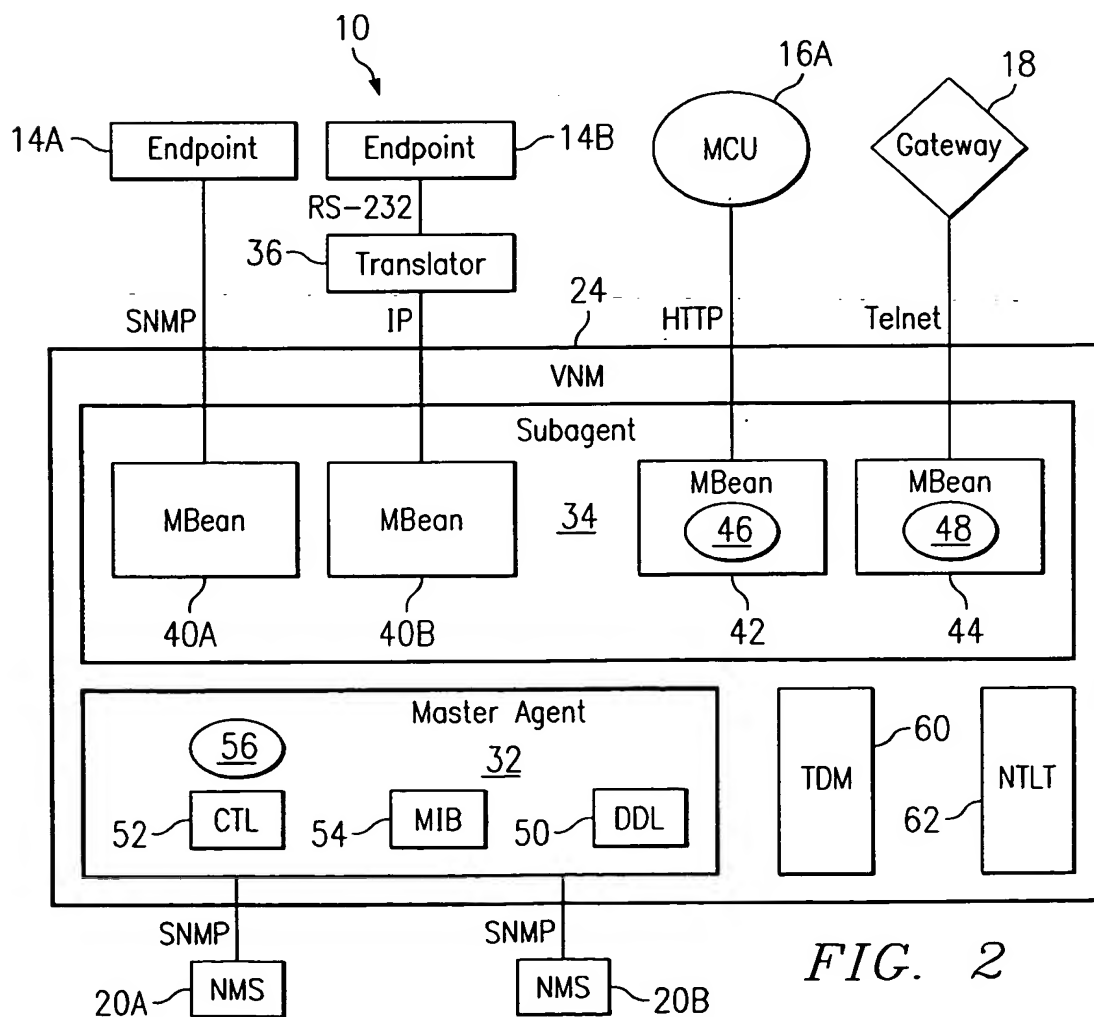Atty Docket: 021556.0139
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FIG. 5

NMS-Traplist Lookup Table   63

NMS-ID	Traplist-ID
NMS-01	Traplist-01
NMS-02	Traplist-03
NMS-03	Traplist-62
...	...

FIG. 3

Discovered Device List   50

VNM-Device-ID	Device-Type-Code	Device-Description	Specific-IP
Dev-01	52	PictureTel 900Series ver3.5	10.12.12.8
Dev-02	14	Accord MGC100 ver3.0	10.12.12.15
...		...	...

FIG. 6

Traplist-ID: Traplist-01

62A / 62B

Traplist-ID	Trap-Number	Trap-Description	Threshold/Combinational Logic	Specific-IP	Device-Type-Code	Device-Description	Severity	Delivery
Traplist-62	123	80% Utilization on AccordMGC50	Trap.123.logic	<none>	14	Accord MGC50 ver 2.2	5	E-mail
Traplist-62	136	Teleos not responding	Trap.136.logic	<none>	33	Teleos20	1	Page John
Traplist-62	247	30 CRC errs/min or more on boardroom's Tandberg6000	Trap.247.logic	10.12.12.5	8	Tandberg6000	1	Page Mary
...		...	...		...	...	...	...

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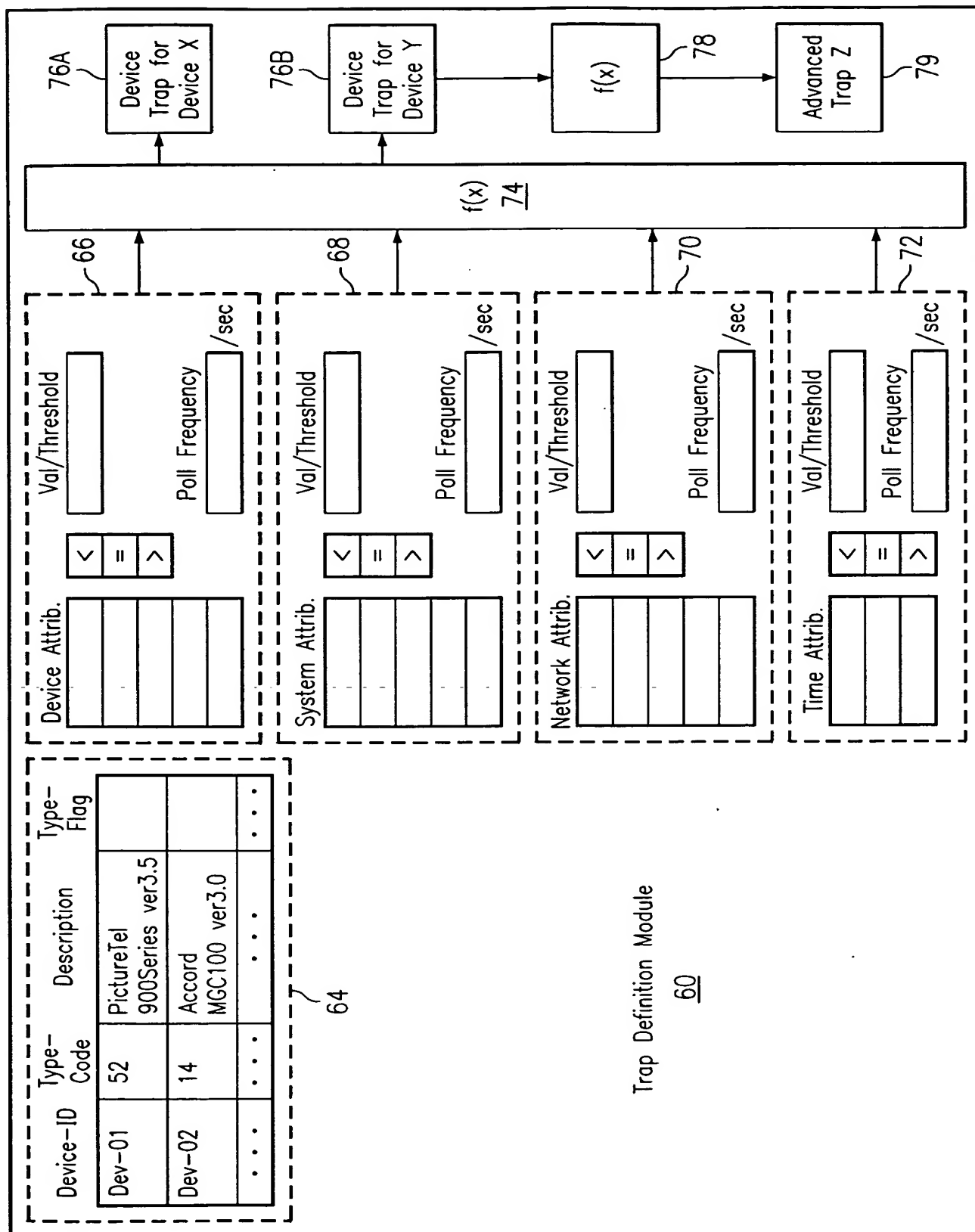Atty Docket: 021556.0139
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FIG. 4

Device-ID	Type-Code	Description	Type-Flag
Dev-01	52	PictureTel 900Series ver3.5	
Dev-02	14	Accord MGC100 ver3.0	
.	.	.	.
.	.	.	.

64

Device Attrib. ∨ = ∧ Val/Threshold Poll Frequency /sec — 66

System Attrib. ∨ = ∧ Val/Threshold Poll Frequency /sec — 68

Network Attrib. ∨ = ∧ Val/Threshold Poll Frequency /sec — 70

Time Attrib. ∨ = ∧ Val/Threshold Poll Frequency /sec — 72

$f(x)$ 74

76A Device Trap for Device X

76B Device Trap for Device Y

$f(x)$ — 78

Advanced Trap Z — 79

Trap Definition Module
60

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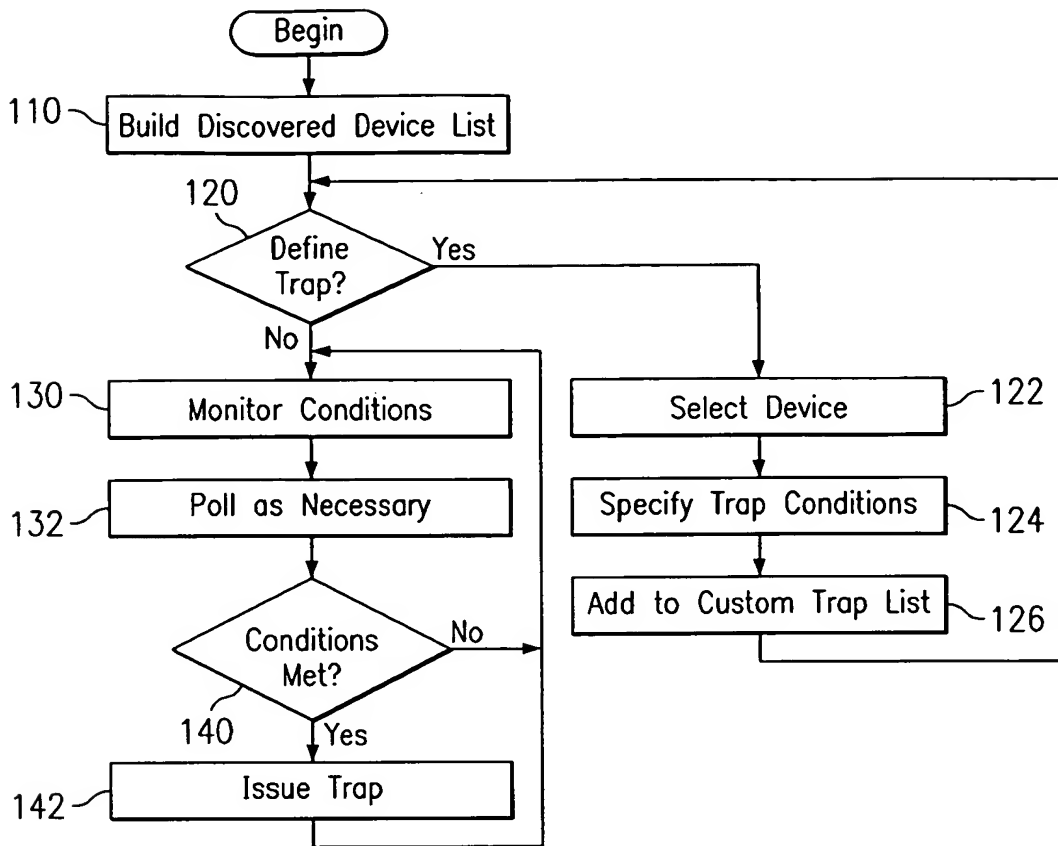Atty Docket: 021556.0139
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FIG. 7

Begin

110 — Build Discovered Device List

120 — Define Trap?
— Yes →
— No ↓

130 — Monitor Conditions

132 — Poll as Necessary

Conditions Met?
— No →
— Yes ↓

140

142 — Issue Trap

122 — Select Device

124 — Specify Trap Conditions

126 — Add to Custom Trap List

FIG. 8

22

Network Port 91

Network Port 90

RAM 82

32 34

100

CPU 80

I/O 94

86

ROM 84

Disk Drive

60 62

92

24